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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,623	03/20/2007	Viktor Reis	09244W-US	5395
30680 7590 05/25/2010 DEERE & COMPANY ONE JOHN DEERE PLACE MOLINE, IL 61265				
EXAMINER				
AUNG, SAN M				
ART UNIT		PAPER NUMBER		
3657				
MAIL DATE		DELIVERY MODE		
05/25/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/581,623

**Applicant(s)**

REIS ET AL.

**Examiner**

SAN AUNG

**Art Unit**

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

### **DETAILED ACTION**

This communication is a Third Office Action Non-Final rejection on the merits.  
Claims 1-23, as originally filed, are currently pending and have been considered below.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 24, 2010 has been entered.

#### ***Response to Amendment***

The amendment filed March 24, 2010 has been entered. Claims 11, 12, and 13 have been amended and claims 1-10 have been previously cancelled. Therefore, claims 11-23 are now pending in the application.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 11, 12 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsufuji (US Patent 5,669,479), and further in view of Marquart (US Patent 4,915,193).

**As per claim 11**, Matsufuji discloses Oil Supply System for Working Vehicle comprising;

a first gearbox section (Attached figure), wherein the first gearbox section comprises a first gearbox assembly (Attached figure and figure 1);

a second gearbox section (Attached figure), wherein the second gearbox section comprises a second gearbox assembly (Attached figure and figure 1), the second gearbox assembly is a power take-off assembly 9shaft 24 is a power take-off shaft, Figure 1), and the first and second gearbox sections cooperate to form part of a lubricant sump (Figure 1); and

a lubricant encapsulated at least partially in the first and second gearbox sections (Oil level OL<sub>a</sub>, Figure 2).

However, Matsufuji fails to explicitly disclose that more lubricant is retained in one of the first and second gearbox sections that is operating at a lower speed relative to the other of the first and second gearbox sections that is operating at a higher speed.

Marquart discloses Air/Oil Level Control for Transmission Lubrication comprising: more lubricant is retained in one of the first and second gearbox sections that is operating at a lower speed relative to the other of the first and second gearbox sections that is operating at a higher speed (Column 2, Lines 3-11, Figure 1).

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the oil supply system of the Matsufuji to include the lubrication system which include more lubricant is retained in one of the first and second gearbox sections that is operating at a lower speed relative to the other of the first and

second gearbox sections that is operating at a higher speed as taught by Marquart in order to provide a system for balancing oil levels which does not require an oil pump.

**As per claim 12**, Matsufuji discloses the first gearbox assembly is a differential assembly (Attached figure and figure 1),

the differential assembly comprises a ring gear (20), and the ring gear rotates about an axis (Attached figure and figure 1);

the second gearbox section (Attached figure) comprises a bearing plate (3b) defined by a plane (Attached figure and figure 1); and

the axis and the plane are parallel to one another (Attached figure and figure 1).

**As per claim 21**, Matsufuji discloses a guide contained within at least one of the first and second gearbox sections (Shaft 17, 22, 23, and 24 are attached to the wall 3a, which served as a separator and bearing plate 3b, so that it is inherently disclose that wall 3a and 3b must include the guide to rotate the shaft, Attached figure and figure 1).

4. **Claims 22 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsufuji (US Patent 5,669,479) as modified by Marquart (US Patent 4,915,193) as applied to claims 11 and 12 above, and further in view of Rimkus et al. (US Patent 6,718,847 B1).

**As per claim 22**, Matsufuji as modified by Marquart discloses all the structural elements of the claimed invention but fails to explicitly disclose an air pump in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and into the first and second gearbox sections.

Rimkus discloses an air pump (26) in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and into the first and second gearbox sections (Column 2, Lines 33-42, Figures 1 and 2).

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the oil supply system of the Matsufuji as modified by Marquart to include the air pump in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and into the first and second gearbox sections as taught by Rimkus in order to retain necessary oil level in each chamber when transmission is operating and also provide rapid compensation of the fluid after transmission has been turn off.

**As per claim 23**, Matsufuji discloses a separator comprising a return, wherein the separator (3a) is mounted to at least one of the first and second gearbox sections (Figure 1), and the separator extends from the base of the gearbox arrangement up to at least the height of a gearbox input shaft (Figure 1).

a guide contained within at least one of the first and second gearbox sections (Shaft 17, 22, 23, and 24 are attached to the wall 3a, which served as a separator and bearing plate 3b, so that it is inherently disclose that wall 3a and 3b must include the guide to rotate the shaft, Attached figure and figure 1);

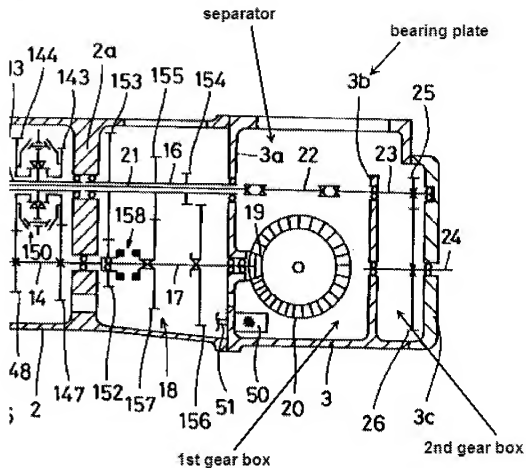
However, Matsufuji fails to explicitly disclose that an air pump in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and, ultimately, into the first and second gearbox sections; and

a housing seal, wherein the housing seal is fastened to the separator, and the housing seal mates with the gearbox housing.

Rimkus discloses an air pump (26) in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and, ultimately, into the first and second gearbox sections (Column 2, Lines 33-42, Figures 1 and 2); and

a housing seal (44, 46), wherein the housing seal is fastened to the separator, and the housing seal mates with the gearbox housing.

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the oil supply system of the Matsufuji as modified by Marquart to include the air pump in communication with the main gearbox portion to force lubricant located in the main gearbox portion into a lubricant channel and, ultimately, into the first and second gearbox sections, and a housing seal, wherein the housing seal is fastened to the separator, and the housing seal mates with the gearbox housing as taught by Rimkus in order to retain necessary oil level in each chamber when transmission is operating and also provide rapid compensation of the fluid after transmission has been turn off.



***Allowable Subject Matter***

5. **Claim 13** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**As per claim 13**, recited prior art fails to disclose that separator is mounted to the bearing plate.

6. **Claims 14-20** are dependent of claim 13, are therefore allowable.



***Response to Arguments***

7. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAN AUNG whose telephone number is (571)270-5792. The examiner can normally be reached on Mon-to- Fri 7:30 am- to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

San M Aung

/Robert A. Siconolfi/

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